

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

EXPRESS MAIL NO. EV 326709016 US

Applicant : Jin Yan Li  
Application No. : 10/524,606  
Filed : February 14, 2005  
Title : PREDICTION BY COLLECTIVE LIKELIHOOD FROM  
EMERGING PATTERNS

Grp./Div. : 2121  
Examiner : To be determined  
Docket No. : 54384/DBP/C982

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT  
37 CFR § 1.97(b)

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Post Office Box 7068  
Pasadena, CA 91109-7068  
May 31, 2005

Commissioner:

In compliance with the duty of disclosure under 37 CFR §§ 1.56, 1.97 and 1.98, and in accordance with the provisions in the Manual of Patent Examining Procedure §§ 609 and 707.05(b), enclosed is FORM PTO/SB/08A/B listing the references that are known to applicant. Copies of each of the listed Other Documents are enclosed. This filing is timely because it is made during one of the periods described in 37 CFR § 1.97(b).

It is respectfully requested that the listed references be considered in the examination of this application and identified on the list of references cited on the patent issuing for this application. Applicant also requests that an initialed copy of FORM PTO/SB/08A/B be entered in the application file and returned to applicant with the next communication from the Office in accordance with MPEP § 609.

Respectfully submitted,  
CHRISTIE, PARKER & HALE, LLP

By D. Bruce Prout  
D. Bruce Prout  
Reg. No. 20,958  
626/795-9900

DBP/dg  
Enclosures: Form PTO/SB/08A/B, w/references  
DLG PAS625925.1 \*-05/27/05 2:43 PM

<b>FORM PTO/SB/08A/B (10-01)</b> Substitute for PTO-1449A/B  <b>INFORMATION DISCLOSURE</b>  <b>STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)	<b>Attorney Docket Number</b>	34384/DBP/C982
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	<b>Applicant(s)</b>	Jin Yan Li
	<b>Group Art Unit</b>	2121
	<b>Examiner Name</b>	To be determined

U.S. PATENT DOCUMENTS				
EXAMINER INITIALS	Cite No. <sup>1</sup>	DOCUMENT NUMBER Number - Kind Code <sup>2</sup> (If Known)	PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE

FOREIGN PATENT DOCUMENTS					
EXAMINER INITIALS	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (If Known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup> (✓)

OTHER DOCUMENTS		
EXAMINER INITIALS	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		Dong, G., et al., <i>Efficient Mining of Emerging Patterns: Discovering Trends and Differences</i> , ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, San Diego, August 1999, pp 43-52
		Cover, T.M., et al., <i>Nearest Neighbor Pattern Classification</i> , IEEE Transactions on Information Theory, Vol. IT-13, No. 1, January 1967, pp 21-27
		Burges, Christopher J.C., <i>A Tutorial on Support Vector Machines for Pattern Recognition</i> , Data Mining and Knowledge Discovery, Vol. 2, (1998), pp 1-43
		Langley, P., et al., <i>An Analysis of Bayesian Classifiers</i> , Proceedings of the Tenth National Conference on Artificial Intelligence, AAAI Press, (1992), pp 1-14
		Chu, S., et al., <i>The Transcriptional Program of Sporulation in Budding Yeast</i> , SCIENCE, Vol. 282, October 23, 1998, pp 699-705
		DeRisi, J.L., et al., <i>Exploring the Metabolic and Genetic Control of Gene Expression on a Genomic Scale</i> , SCIENCE, Vol. 278, October 24, 1997, pp 680-686

EXAMINER SIGNATURE	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at www.pto.gov or MPEP 901.4. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.	

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EXAMINER INITIALS	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		Alon, U., et al., <i>Broad patterns of gene expression revealed by clustering analysis of tumor and normal colon tissues probed by oligonucleotide arrays</i> , Proc. Natl. Acad. Sci. USA, Vol. 96, June 1999, pp 6745-6750
		Golub, T.R., et al., <i>Molecular Classification of Cancer: Class Discovery and Class Prediction by Gene Expression Monitoring</i> , SCIENCE, Vol. 286, October 15, 1999, pp 531-537
		Perou, C. M., et al., <i>Distinctive gene expression patterns in human mammary epithelial cells and breast cancers</i> , Proc. Natl. Acad. Sci. USA, Vol. 96, August 1999, pp 9212-9217
		Furey, T. S., et al., <i>Support vector machine classification and validation of cancer tissue samples using microarray expression data</i> , Bioinformatics, Vol. 16, No. 10, (2000), pp 906-914
		Yeoh, Eng-Juh, et al., <i>Classification, subtype discovery, and prediction of outcome in pediatric acute lymphoblastic leukemia by gene expression profiling</i> , Cancer Cell, Vol. 1, March 2002, pp 133-143
		Dong, G., et. al., <i>CAEP: Classification by Aggregating Emerging Patterns</i> , Discovery Science 99, November 5, 1999, 14 pages
		Li, Jinyan, et al., <i>Making Use of the Most Expressive Jumping Emerging Patterns for Classification</i> , Knowledge and Information Systems, Vol. 3, (2001), pp 131-145
		Li, Jinyan, et al., <i>The Space of Jumping Emerging Patterns and Its Incremental Maintenance Algorithms</i> , ICML (2000), pp. 552-559
		Frawley, W., et al., <i>Knowledge Discovery in Databases: An Overview</i> , AAAI, Fall 1992, pp. 57-70
		Codd, E.F., <i>A Relational Model of Data for Large Shared Data Banks</i> , Communications of the ACM, Vol. 13, No. 6, June, 1970, pp. 377-387
		Agrawal, R., et al., <i>Fast Algorithms for Mining Association Rules</i> , Proceedings of the 20th VLDB Conference, Santiago, Chile, (1994), 13 pages.
		Bayardo, Roberto J., Jr., <i>Efficiently Mining Long Patterns from Databases</i> , Proceedings of the 1998 ACM-SIGMOD International Conference on Management of Data, pp 85-93
		Liu, B., et al., <i>Integrating Classification and Association Rule Mining</i> , AAAI, (1998), 7 pages
		Meretakakis, D., et al., <i>Extending Naïve Bayes Classifiers Using Long Itemsets</i> , Proceedings of the Fifth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, San Diego, CA, (1999), pp 165-174.

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		Thesis, Li, Jinyan, <i>Mining Emerging Patterns To Construct Accurate And Efficient Classifiers</i> , Department of Computer Science & Software Engineering, The University of Melbourne, Australia January 2001, 171 pages
		Kohavi, R., <i>MLC++: A Machine Learning Library in C++</i> , Tools with AI (1994), pp 740-743
		Dougherty, J., et al., <i>Supervised and Unsupervised Discretization of Continuous Features</i> , Proceedings of the IEEE 12th International Conference, 1995, 9 pages
		Liu, H., et al., <i>Chi2: Feature Selection and Discretization of Numeric Attributes</i> , Proceedings of the IEEE 7th International Conference on Tools with Artificial Intelligence
		Li, Jinyan, et al., <i>Emerging Patterns and Gene Expression Data</i> , Genome Information Vol. 12, (2001), pp. 3-13 (previously listed as "ON ORDER")
		Li, Jinyan, et al., <i>Identifying good diagnostic gene groups from gene expression profiles using the concept of emerging patterns</i> , BIOINFORMATICS, Vol. 18, No. 5, (2002), pp725-734 (previously listed as "ON ORDER")

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